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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,888	12/30/1999	TOSHIYUKI FUTAKATA	6342-0039-2	3055

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EXAMINER

KUMAR, PANKAJ

ART UNIT PAPER NUMBER

2631

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/446,888

Applicant(s)

FUTAKATA ET AL.

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

1. DETAILED ACTION

2. *Specification*

3. The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

4. *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

6. A person shall be entitled to a patent unless –

7. (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato USPN 6130884.

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10. As per claim 1, Sato teaches a spreading code assigning (Sato fig. 1: 110 is assigned a code number; col. 1 line 35 indicates 64 spread codes) method in a direct sequence CDMA mobile communication system (Sato col. 1 lines 12 to 21 “digital mobile phone ... using ... CDMA ...”) for transmitting a signal (Sato fig. 1: output is to an antenna) after spreading said signal doubly (Sato fig. 1: 106, 108, 112) with a first spreading code in a first spreading code group (Sato fig. 1: 109, 110, bit rate, code number) and a second spreading code in a second spreading code group (Sato fig. 1: 114, base station code number),

11. said first spreading code having the same repetition period as an information symbol period (Sato fig. 2: period of first spread code is the same as that of a repeated d1” or d1’),

12. said second spreading code having a longer repetition period than the information symbol period (Sato fig. 2: period of second spread code is the same as that of a unrepeated d1” or d1’),
said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal (inherent),

13. a rate of said spreading codes being higher than an information rate (Sato fig. 2: in channel #2, rate of spreading code e2 is higher than d1’ and rate of spreading code c2 is higher than d1’),

14. said method comprising the step of

15. assigning a code associated with each base station group or a code associated with each network type to which said base station group belongs as said second spreading code (Sato fig. 1: base station code number is input into 114, col. 1).

16. As per claim 2, Sato teaches a signal transmitting method in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an information symbol period, said second spreading code having a longer repetition period than the information symbol period,

17. said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate, (discussed in claim 1 up to here) said method comprising the steps of assigning a code associated with each base station group or a code associated with each network type to which said base station group belongs as said second spreading code (Sato fig. 1: base station code number is input into 114);

18. and transmitting a signal (Sato fig. 1: output is to an antenna) which is spread with said second spreading code between a base station and a mobile station (Sato col. 1 lines 22 to 37: "... from base station to mobile station ..."). (also see above discussions)

19. As per claim 3, Sato teaches a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an information symbol period, said second spreading code having a longer repetition period than the information symbol period, said first spreading code and said second spreading code forming spreading codes for enlarging a band of

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a wide-band signal, a rate of said spreading codes being higher than an information rate, (discussed in claim 1 up to here) said system comprising: a base station using said second spreading code assigned to each base station group or said second spreading code assigned to each network type to which said base station group belongs (Sato fig. 1: base station code number is input into 114, col. 1); and a mobile station communicating with said base station by using a signal which is spread by said second spreading code assigned to said base station (Sato fig. 1: base station code number entering 114). (also see above discussions)

20. As per claim 4, Sato teaches a transmitter in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an information symbol period, said second spreading code having a longer repetition period than the information symbol period, said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate, said transmitter assigning a code associated with each base station group or a code associated with each network type to which said base station group belongs as said second spreading code, and said transmitter carrying out a communication using a signal spread by said second spreading code assigned to a base station. (See above discussions)

21. As per claim 5, Sato teaches a receiver in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an information symbol period, said second spreading code having a longer repetition period than the information symbol period, said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate, said receiver assigning a code associated with each base station group or a code associated with each network type to which said base station group belongs as said second spreading code, and said receiver carrying out a communication using a signal spread by said second spreading code assigned to a base station. (See above discussions)

22. As per claim 6, Sato teaches a transceiver in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an information symbol period, said second spreading code having a longer repetition period than the information symbol period, said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate, said transceiver assigning a code associated with each base station group or a code associated with each network type to which said base station group belongs as said second spreading code, and said transceiver carrying out a communication using

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a signal spread by said second spreading code assigned to a base station. (See above discussions)

23. As per claim 7, Sato teaches the transmitter in the direct sequence CDMA mobile communication system as claimed in claim 4, said transmitter comprising:

24. second spreading code control means (Sato fig. 1: 114 with its input) which generates (Sato fig. 1: 114) and controls (Sato fig. 1: input into 114) said second spreading code (Sato fig. 1: output of 114) associated with each base station group or each network type to which said base station group belongs (Sato fig. 1: base station code number).

25. As per claim 8, Sato teaches the receiver in the direct sequence CDMA mobile communication system as claimed in claim 5, said receiver comprising: second spreading code control means which generates and controls said second spreading code associated with each base station group or each network type to which said base station group belongs. (See above discussions)

26. As per claim 9, Sato teaches the transceiver in the direct sequence CDMA mobile communication system as claimed in claim 6, said transceiver comprising:

27. second spreading code control means which generates and controls said second spreading code associated with each base station group or each network type to which said base station group belongs. (See above discussions)

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28. Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Higuchi US 6167037, US 5790588 A, US 5673260 A, US 4969159 A, US 6167037 A, US 6445713 B1, US 6259723 B1, US 5103459 A, US 6195343 B1, US 6188767 B1, US 6144650 A, US 5581547 A, US 6044104 A, US 5966377 A, US 5903595 A.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Monday through Thursday after 8AM to after 6:30PM.

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.


32. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

33.

34.

35. PK

36. December 26, 2002


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 12/27/02